

ACTS Propagation Measurements

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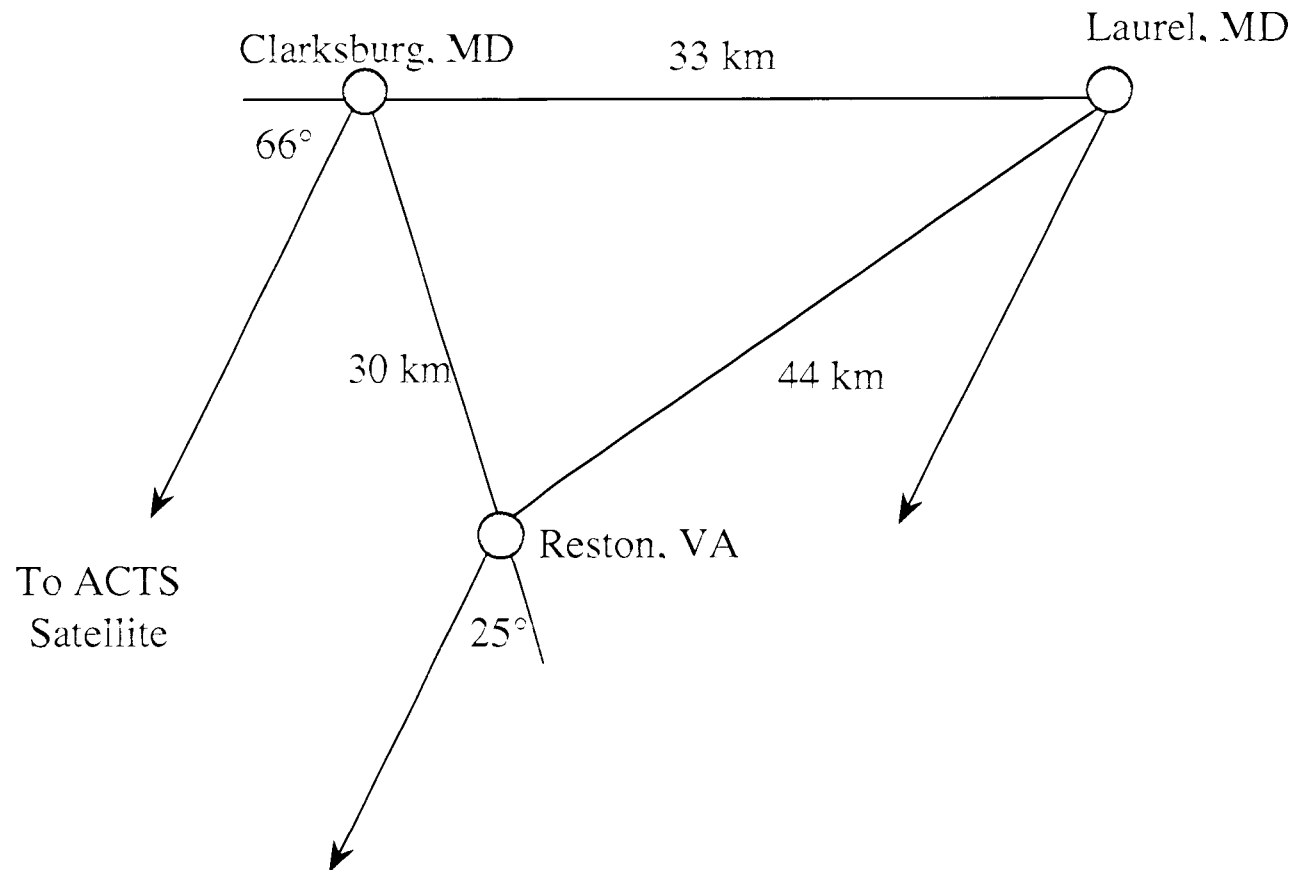
Introduction

- **ACTS** propagation measurements conducted at three sites in Washington **DC** area and a tropical location in Mexico.

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- Main objectives of the measurements are:
 - collect long-term propagation data
 - investigate multiple site diversity
 - characterize propagation conditions in tropical areas
 - development of propagation models
 - investigation of fade mitigation techniques

Measurement Site Configuration: Washington DC Area



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Program Status

- Data collection:

Clarksburg: 52 months completed

Reston: 55 months completed

Laurel: 33 months completed

- Data analysis:

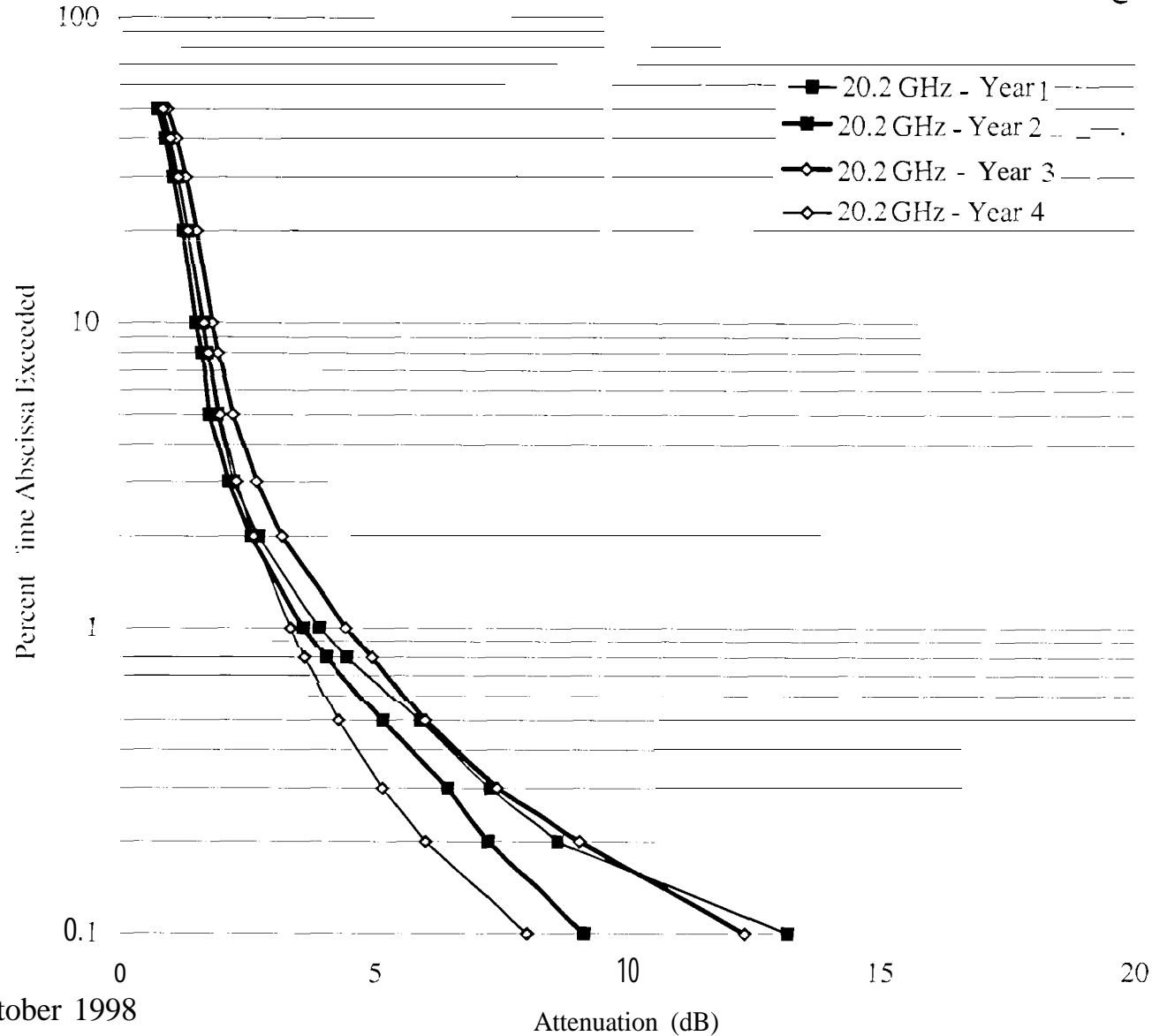
Clarksburg: 52 months completed

Reston: 52 months completed

Attenuation Statistics

- Single site attenuation statistics for the four years from November 1993 through October 1997 have been generated.
- For the same 12 month period, distribution of attenuation for the two sites are very similar.
- Considerable year-to-year variability observed in the data.
- Model predictions fall within the annual variation.

Cumulative Distribution of Attenuation at 20.2 GHz: Clarksburg



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